E-Assessment and NEP 2020: Transforming Assessment for Students' Development

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Abstract

The technological advancement and e-learning systems has resulted during upraised demand for tactics and means in measuring student's learning. Assessment is undoubtedly an important part of the education process in any education institution. The present study is to points on concepts of e-assessment; e-assessment historical background, tasks which will be accessed through e-assessment; purposes for assessment; recommendations of NEP2020 to shift assessment from summative to formative for students' development; advantages and issues of e-assessment. it's concluded that e-assessment are more productive if it is reliable, valid and trustworthy so the Assessors need collaborative attempt to develop genuine, transparent, valid and practicable assessment. E-assessment helps to measure the task of high order assessment.

Keywords: E-assessment, NEP 2020, Assessment of Learning, Assessment for Learning, Assessment as Learning.

Introduction

The modern era of digitalization emerges the digital technologies in the teaching-learning process from school to higher education; teachers require suitable training and development to be effective online educators. It can't be assumed that an honest teacher during a traditional classroom will automatically be an honest teacher in a web classroom. Apart from changes required in pedagogy, online assessments also require a special approach. So, the NEP 2020 Policy recommends the initiative of online assessment and examinations.

E-Assessment

Electronic assessment, also referred as online assessment or computer-based assessment, is that the use of data technology in assessment. Nowadays it is becoming more popular and widely employed by testing or assessment agencies which represent the expansion in adoption of technology-enhanced assessment.

Online assessment is employed primarily to live for the evaluation of cognitive abilities, academic readiness, learning progress and skill acquisition of the test takers. When assessing practical abilities or to demonstrate learning that has occurred over prolonged a web portfolio (or e-Portfolio) is usually used. Different types of online assessments contain elements of one or more of the subsequent components, counting on the assessment's purpose: formative, summative and diagnostic be enabled.

Background of E-assessment

E-assessment has the history long back even before the invention of computers. ICT has been playing a helping tool in education for quite a long time. The first teaching machine was introduced by Sydney L. Presses in 1920 for automatic testing and then another teaching machine named 'GLIDER' designed by B.F. Skinner, which offers quick and expected reinforcement based on student's performance and feedback. In 1952,

Santa Paula High School designed 'DIDAK 501s' which gives clues for the answer. In 1960, PLATO was introduced and then XANADU was developed. Mostly all the mentioned teaching machines presents a sequence of questions that offered the learner self-paced learning and an opportunity to verify their work. In 1970s the adoption of computer technology was mainly used to reduce the workload of manual evaluation. In India computer technology started in 1950s. The very initial digital computer in India was built at Bombay to solve the problems of physics and atomic energy. After the introduction of www in the 1990s computer influenced all the sectors including education used in planning, administration and scoring of assessment. India was one of the first countries of the world to use computer in Research Education Planning and Development.

The development of MOOC plays important role in the expansion of e-assessment because it offers online course with online assessment. It took different dimension for any time anywhere purpose. In India after the introduction of SWAYAM e-assessment becomes inevitable. At present various apps and software are used to measure the student's performance and now e-assessment becomes more popular above traditional assessment.

There are numerous challenges to conducting online examinations at scale, including limitations on the kinds of questions which will be asked in a web environment, handling network and power disruptions, and preventing unethical practices. Certain sorts of courses/subjects, like humanistic discipline and science practical have limitations within the online/digital education space, which may be overcome to a partial extent with innovative measures. To satisfy the challenges of E-assessment, the NEP2020 recommends for Appropriate bodies, like the proposed PARAKH, NTA, other identified bodies and recently Ministry of Education also launched the NIRF(National Institute Ranking Framework) will design assessment frameworks and implement it within the design of competencies,

portfolios, rubrics, standardized assessments, and assessment analytics. Altogether stages, experiential learning are going to be implemented soon within each subject, including hands-on learning approach, arts-integrated education, story-telling-based pedagogy and sports-integrated education as standard pedagogy. To shut the gap of learning outcomes, classroom-based techniques will move beyond the classroom and shift education towards competency-based education. The learning assessment tools ("as", "of", and "for") will also be aligned with the training outcomes, complexity and capabilities for every subject.

Purpose for Assessment

The assessment functions best when its purpose is clear, and when it's carefully designed to suit that purpose. There are three distinct but inter-connected purposes for assessment i.e., assessment "of", "for" and "as" learning

Assessment of Learning

Assessment of Learning is the assessment which provides useful information that about how well students completed their learning. The aim of this type of assessment is typically SUMMATIVE and is usually done at the top of a task, unit of labor etc. It is designed to supply evidence of accomplishment to oldsters, other educators, the scholars themselves and sometimes to outside groups (e.g., employers, other educational institutions).

Role of Teacher in Assessment of Learning

Teacher is responsible to report about students' performance in learning and accountable for accurate and fair assessment of students' learning. The teachers need to provide the following for effective assessment of learning:

- Clear and fair descriptions of the proposed learning.
- A logical understanding of a specific assessment of learning for a specific point of time.

- A variety of other mechanisms for assessing an equivalent outcome.
- To facilitate college students to present their capability and skill.
- Public and defensible reference points for creating judgements.
- Transparency in interpretation.
- Explanation about the assessment process.
- Strategies in case of disagreement about the assessment decisions.

Assessment for Learning

In Assessment for Learning, the assessment shifts from summative to FORMATIVE. Assessment for Learning happens during the training, often quite once, instead of at the top. Students understand exactly what they're to find out and expected from them and are given feedback and advice on the way to improve their work. In Assessment for Learning, teachers use investigable tool for assessment to seek out students' knowledge, their confusions and gaps they could have. The big variety of data collected by teacher about students' learning provides the idea to determine learning processes next to maneuver student learning forward and also provides the feedback for choosing resources, instructional strategies, and groupings accordingly.

Roles of Teachers in Assessment for Learning:

As this assessment takes place throughout the training process and it is interactive. So, the teachers need to function as below:

- To regulate instructions in an ordered way.
- To identify the scholars' learning need.
- To select appropriate learning resources and materials for learners.
- To provide immediate feedback to students.
- To create individualized teaching strategies.
- To provide effective learning opportunities to students.

- To reinforce and motivates students for better learning.

Assessment as Learning

Assessment as learning prepared students to study them as and become conscious them about how they learn and to become metacognitive. Students review their work through self-assessment or by peer evaluation and choose what their next learning is going to be with the assistance of the teacher. Assessment as learning helps students to require more responsible for their own learning and monitoring future directions.

Assessment as Learning for Monitoring Metacognition:

- What is the aim of learning the concepts and skills?
- What knowledge required about the particular topic?
- Which strategies will help to learn?
- Which standards help to improve the work?
- Have the set goals fulfilled?

Roles of Teachers in Assessment as Learning:

Through the process of assessment as learning teachers play significant role to encourage independent learners and assist the event as:

- Teach the skills of self-assessment.
- Provide guidance to learners to set their goals, and monitor their progress.
- Provide models of fantastic practice which reflect qualitative outcome.
- Develop clear criteria of excellent practice among learners.
- Help learners to develop self-monitoring mechanisms.
- Facilitate regular and challenging opportunities to develop confidence among students and become competent self-assessors.
- Monitor metacognitive processes of learner during their learning, and supply feedback

- Create safe and appropriate environment required for learners where support is quickly available.

NEP 2020: Transforming Assessment for Student Development

- The aim of assessment within the culture of our schooling system will shift from one that's summative and primarily tests rote memorization skills to a minimum of one that's more regular and formative, is more competency-based, promotes learning and development for our students, and tests higher-order skills, like analysis, critical thinking, and conceptual clarity. the primary purpose of assessment will indeed be for learning; it'll help the teacher and student, and thus the whole schooling system, continuously revise teaching-learning processes to optimize learning and development for all students. This might be the underlying principle for assessment within the least levels of education.
- The progress card of all students for school-based assessment, which is communicated by schools to folks, are getting to be completely redesigned by States/UTs under guidance from the proposed National Assessment Centre, NCERT, and SCERTs. The progress cards are getting to be a holistic because the individuality of every learner within the cognitive, affective, and psychomotor domains. it'll include self-assessment and peer assessment, and progress of the child in project-based and inquiry-based learning, quizzes, role plays, group work, portfolios, etc., alongside teacher assessment. The holistic progress card will form an important link between home and school and may be amid parent-teacher meetings so on actively involve parents in their children's holistic education and development. The progress card would also provide teachers and foyes with

valuable information on the thanks to support each student in and out of the classroom. AI-based software could be developed and employed by students to help track their growth through their school years supported learning data and interactive questionnaires for people, students, and teachers, so on supply students with valuable information on their strengths, areas of interest, and needed areas of focus, and to thereby help them make optimal career choices

- The current nature of lyceum exams, including Board exams and entrance exams - and thus the resulting coaching culture of today - do much harm, especially at the lyceum level, replacing valuable time. These exams also force students to seek out F. Skinner a very narrow band of cloth during one stream, rather than allowing the pliability and selection which can be so important within the education system of the long run.
- While the Board exams for Grades 10 and 12 are getting to be continued, the prevailing system of Board and entrance examinations shall be reformed to eliminate the need for undertaking coaching classes. To reverse these harmful effects of this assessment system, Board exams are getting to be redesigned to encourage holistic development; students are getting to be able to choose many of the themes during which they take Board exams, relying on their individualized interests. Board exams also are going to be made 'easier', within the sense that they go to check primarily core capacities/competencies rather than months of coaching and memorization; any student who has been getting to and making a basic effort during a faculty class are going to be able to pass and do well within the corresponding subject Board Exam without much additional effort. To further eliminate the 'high stakes' aspect

of Board Exams, all students are getting to be allowed to need Board Exams on up to 2 occasions during any given school year.

- Introducing best-of-two attempts, student choice, and assessments that primarily test core capacities must be the immediate key reforms to all or any or any Board exams. Boards may over time also develop further viable models of Board Exams that reduce pressure and thus the coaching culture.
- With regard to all of the above, guidelines are getting to be prepared by NCERT, in consultation with major stakeholders, like SCERTs, Boards of Assessment, the proposed new National Assessment Centre etc., and teachers prepared, for a change within the assessment system by the 2022-23 academic term, to align with the NCFSE 2020-21.
- To track progress throughout the varsity years, and not just at the highest of Grades 10 and 12 - for the advantage of scholars, parents, teachers, principals, and thus the whole schooling system in planning improvements to high schools and teaching-learning processes - all students will take school examinations in Grades 3, 5, and eight which may be conducted by the suitable authority. These examinations would test achievement of basic learning outcomes, through assessment of core concepts and knowledge from the national and native curricula, alongside relevant higher-order skills and application of knowledge in real-life situations, rather than rote memorization. The Grade 3 examination, especially, would test basic literacy, numeracy, and other foundational skills. The results of college examinations are getting to be used only for developmental purposes of the varsity education system.
- It's proposed to line up a National Assessment Centre, PARAKH (Performance Assessment, Review, and

Analysis of knowledge for Holistic Development), as a standard-setting body under GOI for setting norms, standards, and guidelines for student assessment, guiding the State Achievement Survey (SAS) and undertaking the National Achievement Survey (NAS), monitoring achievement of learning outcomes within the country, and galvanizing and helping school boards towards meeting the skill requirements of the 21st century. This Centre will advise school boards regarding new assessment patterns and latest researches, promote collaborations between school boards. It'll also become an instrument for the sharing of best practices among school boards, and for ensuring equivalence of educational standards among learners across all school boards.

- The principles for university entrance exams are getting to be similar. The NTA will work to provide a high-quality common aptitude test, a minimum of twice once a year. These exams shall test conceptual understanding and thus the power to use knowledge and shall aim to eliminate the need for taking coaching for these exams. Students are getting to be able to choose the themes for taking the test and each university are getting to be able to see each student's individual subject portfolio and admit students into their programme supported individual interests and skills. the highest quality, range, and adaptableness of the NTA testing services will enable most universities to use these common entrance exams - rather than having many universities each devising their own entrance exams - thereby drastically reducing the burden on students, universities and colleges, and thus the whole education system. It'll be left up to individual universities and colleges to use

NTA assessments for his or her admissions.

Benefits of E-Assessment

The benefits of e-assessment used for formative or summative purposes:

- Students are often assessed in a limited timeframe, especially if their answers are marked automatically.
- Immediate feedback from teachers and learners.
- Repeat and randomize tests.
- Consistent and fair marked assessment through computer.
- Students' ability to finish assessments anywhere and at any time (time saving)
- Opportunities for college learners to require responsibility for their own learning.
- Students are often enabled through e-assessment to spot and reflect on what they need been taught and have learned within the context of blended learning (which includes e-assessment as a component).
- It improves the standard of the scholar learning experience.
- It gives richer assessment experience because the questions are often made more clearer and more detail through the utilization of multimedia.
- It enhances to incorporate multimedia which is feasible in e-assessment. Teacher can use such media to construct questions and learner also can use an equivalent for the solution which is impossible within the paper world.
- It has more flexibility because e-assessment on demand is often achievable.
- It often taken anywhere at any time.
- It also provides feedback to the learners highlighting the areas to be improved on.
- It reduces the administration problem because it requires less paper forms to finish, no printing and posting of test papers.

- It ensures greater storage efficiency as compared to physical storage of papers
- It offers friendly interfaces tests, games and simulations which creates learning environment.
- It is fast and straightforward to use.

Challenges of E-Assessment

Despite the advantages reported above, there are also some issues or challenges those institutions, educators, and learner face against e-assessment. The challenges in e-assessment can be divided into three parts:

Challenges for institutions –

- To develop e-assessment policy which unifies pedagogical and practical aims;
- To introduce practical approaches to support computer-based assessment;
- To fix feasible techno-based infrastructure to support e-assessment; and
- To compile policies and procedures to ensure the validity and reliability of e-assessment.

Challenges for lecturers –

- To make e-assessment available to each and every learner;
- To integrate e-assessment design with learning outcomes
- To use appropriate e-assessment methods according to the need and requirement of the learners; and
- To adapt changes in assessment practices.

Challenges for students –

- The possible inability to access assessment tasks on some computer operating systems;
- Possibility of not accessing assessment tasks at particular times, when required;
- Combining the chances of latest technologies within the assessment process. and student needs;

- Lack of experience to possess full control of the use of e-assessment methods; and
- Adapting to changes in assessment practices.

Conclusion

This paper discussed some important concepts that are significant to e-assessment and concluded that e-assessment has the prospective to support and even improve student learning, if properly designed. The high order assessment tasks can also be measured through e-assessment and students are going to be willing to participate in an e-assessment task if the results count towards their semester scores since it'll motivate them to interact with what they require to find out. So, students' perceptions of e-assessment should be taken seriously and also, it's important to watch the way during which students react to e-assessment and subsequently make changes to e-assessment tasks whenever necessary and applicable. Lecturers should make a collaborated effort to make assessment that is authentic, consistent, reliable, transparent and practicable. Credible assessment will enhance students' learning

because it encourages students to be sincere about their own learning and apply a deep learning approach. Lecturers' teaching also will improve if they consider and balance the principles of excellent assessment. Institutions should therefore make sure that their lecturers create assessments that are appropriate and ethical by following assessment policies and procedures. The paper also focuses on three distinct but relevant purposes for assessment i.e., assessment 'for', 'as' and 'of' learning. The assessment serves best when its purpose is clear, and when it's carefully designed to suit that purpose. As mentioned in the NEP 2020 about the transformation of assessment for students' development by shifting the assessment from summative which assess rote memorization skills to regular, formative, more competency based which tests higher order skills and promotes students' learning and development. So, E-assessment might currently be more suitable as against traditional assessment since it's the potential to attenuate stress among students, improve deciding among administrators, and reduce costs and time. As an innovation, it's the likelihood of enhancing learning and teaching at education institutions.

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